

CLAIMS

1. A novel screening method useful for the selection and development of an insect tolerant genotypes or clones, said method comprising the steps of:
- generating the clones of an insect tolerant plant through tissue culture as somaclones and establishing their molecular distinctiveness prior to screening through RAPD analysis at *in vitro* stage itself;
 - micro-propagating the identified molecular variants for multiplication and checking for the stability at molecular level through RAPD among clones of larger population,
 - transferring the identified stable variants after being multiplied to individual culture tubes for forced feeding of insects by releasing actively feeding larvae or nymphs into each culture tube, and
 - multiplying *in-vitro* the surviving clones and rechecking for insect larval non-preference and then field evaluating under natural or artificial insect infestation conditions.
2. A novel screening method as claimed in claim 1 wherein the plants are raised by somacloning or rapid propagation method.
3. A novel screening method useful for the selection and development of an insect tolerant mint plant genotypes or clones, said method comprising the steps of:
- generating the clones of an insect tolerant plant through tissue culture as somaclones and establishing their molecular distinctiveness prior to screening through RAPD analysis at *in vitro* stage itself;

- b) micro-propagating the identified molecular variants for multiplication and checking for the stability at molecular level through RAPD among clones of larger population,
- c) transferring the identified stable variants after being multiplied to individual culture tubes for forced feeding of insects by releasing actively feeding larvae or nymphs into each culture tube, and
- d) multiplying in-vitro the surviving clones and rechecking for insect larval non-preference and then field evaluating under natural or artificial insect infestation conditions.

a 4. A screening method as claimed in claim 1 ~~or 3~~ wherein the insect tolerance trait of the plant is not limited to *S-obliqua* and may cover other insect pests which feed on foliage of the plant.

a 5. A screening method as claimed in claim 1 ~~or 3~~ wherein the clones could be generated vegetatively, tissue culture, glass house or in field by asexual reproduction method.

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